



EXPRESS MAIL NO. EL897874831US

1

## SEQUENCE LISTING

<110> Goshorn, Stephen C.  
Graves, Scott Stoll  
Schultz, Joanne Elaine  
Lin, Yakang  
Sanderson, James A.  
Reno, Jonh M.

<120> STREPTAVIDIN EXPRESSED GENE FUSIONS AND  
METHODS OF USE THEREOF

<130> 690022.547

<140> US 09/589,870

<141> 2000-06-05

<160> 47

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 638

<212> DNA

<213> Streptomyces avidinii

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<212> PRT

<213> Streptomyces avidinii

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RECEIVED  
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TECH CENTER 1600/2300

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Ala Thr Thr Trp Ser Gly Gln Tyr Val Gly Gly Ala Glu Ala Arg Ile				
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Asn Thr Gln Trp Leu Leu Thr Ser Gly Thr Thr Glu Ala Asn Ala Trp				
	130		135	140
Lys Ser Thr Leu Val Gly His Asp Thr Phe Thr Lys Val Lys Pro Ser				
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&lt;211&gt; 1612

&lt;212&gt; DNA

<213> *Streptomyces avidinii*

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&lt;211&gt; 431

&lt;212&gt; PRT

&lt;213&gt; Streptomyces avidinii

&lt;400&gt; 4

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Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser	Ile	Asp	Ala	Ala	Lys
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Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp	Ser	Gly	Gln	Tyr	Val	Gly	Gly
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Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp	Leu	Leu	Thr	Ser	Gly	Thr	Thr
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Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu	Val	Gly	His	Asp	Thr	Phe	Thr
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Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser	Ile	Asp	Ala	Ala	Lys	Lys	Ala	Gly
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&lt;211&gt; 1280

&lt;212&gt; DNA

&lt;213&gt; Streptomyces avidinii

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<210> 8

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<212> PRT

<213> Streptomyces avidinii

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Ser Tyr Asn Met His Trp Val Lys Gln Thr Pro Gly Gln Gly Leu Glu
          35          40          45
Trp Ile Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln
          50          55          60
Lys Phe Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr
          65          70          75          80
Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr
          85          90          95
Tyr Cys Ala Arg Ala Gln Leu Arg Pro Asn Tyr Trp Tyr Phe Asp Val
          100          105          110
Trp Gly Ala Gly Thr Thr Val Thr Val Ser Lys Ile Ser Gly Gly Gly
          115          120          125
Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly
          130          135          140
Ser Gly Gly Gly Gly Ser Ser Asp Ile Val Leu Ser Gln Ser Pro Ala
          145          150          155          160
Ile Leu Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala
          165          170          175
Ser Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Ser
          180          185          190
Ser Pro Lys Pro Trp Ile Tyr Ala Thr Ser Asn Leu Ala Ser Gly Val
          195          200          205
Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr
          210          215          220
Ile Ser Arg Val Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln
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Trp Ile Ser Asn Pro Pro Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu
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Lys Ser Ser Gly Ser Gly Ser Ala Asp Pro Ser Lys Asp Ser Lys Ala
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<213> Artificial Sequence
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<210> 10
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<223> Linker used to create a scFvSA version of anti-CD20mAb, B9E9 in the VLVH orientation

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the VHVL orientation

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<210> 13  
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<212> DNA  
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<400> 26  
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<220>  
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<400> 30

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<211> 18

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<220>

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<400> 31

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21

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<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide primer

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21

<210> 34

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide primer

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<213> Streptomyces avidinii

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acctattact	gtcagcatag	tcgtgaactt	ccgacgttcg	gtggtggcac	caaactggaa	780
atcaag						786

&lt;210&gt; 38

&lt;211&gt; 771

&lt;212&gt; DNA

<213> *Streptomyces avidinii*

&lt;400&gt; 38

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tcctaccgtt	acagtgggtg	cccggatcgc	ttaccggcca	gtggttcttg	gaccgatttc	660
acgctcacca	tcagcaatgt	acagtctgaa	gacttggcgg	agtatttctg	tcacatcaat	720
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&lt;210&gt; 39

&lt;211&gt; 762

&lt;212&gt; DNA

<213> *Streptomyces avidinii*

&lt;400&gt; 39

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ccggaacagg	gcctggaatg	gattgggttg	attgatccgg	agaatgggtga	tactgaatat	180
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ctgcagctca	gcagcctgac	ctctgaagat	actgccgtct	attattgtaa	tgaagggact	300
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gcatctccgg	gtgagaaaat	caccattacc	tgcagtgcc	gctcaagtgt	aagttacatg	540
cattgggtcc	agcagaaaac	gggtacttct	ccgaaactct	ggatttatag	cacctccaac	600
ctggcttctg	gtgttccggc	tcgcttcagt	ggcagtgggt	ctgggacctc	ttactctctc	660
accatcagcc	gtatggaagc	tgaagatgct	gccacttatt	actgccagca	acgtagtagt	720
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&lt;210&gt; 40

&lt;211&gt; 765

&lt;212&gt; DNA

<213> *Streptomyces avidinii*

&lt;400&gt; 40

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ccagagaaga	ggctggagtg	ggtcgcattc	attagtagtg	atggtatcgc	ctactatgca	180
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gcctggatc	aacagaaacc	agggcaatct	cctaaagcac	tgatttactc	ggcatcgtct	600
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accatcagca	atgtgcagtc	tgaagacttg	gcagagtatt	tctgtcagca	atataacagc	720
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&lt;210&gt; 41

&lt;211&gt; 768

&lt;212&gt; DNA

&lt;213&gt; Streptomyces avidinii

&lt;400&gt; 41

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&lt;210&gt; 42

&lt;211&gt; 765

&lt;212&gt; DNA

&lt;213&gt; Streptomyces avidinii

&lt;400&gt; 42

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&lt;210&gt; 43

&lt;211&gt; 741

&lt;212&gt; DNA

&lt;213&gt; Streptomyces avidinii

&lt;400&gt; 43

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&lt;210&gt; 44

&lt;211&gt; 765

&lt;212&gt; DNA

&lt;213&gt; Streptomyces avidinii

&lt;400&gt; 44

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&lt;210&gt; 45

&lt;211&gt; 765

&lt;212&gt; DNA

&lt;213&gt; Streptomyces avidinii

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aacctggctt	ctggagtcct	tgctcgcttc	agtggcagtg	ggtctgggac	ctcttactct	660
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<400> 47  
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